IN THE CLAIMS:

1.   (Currently Amended) A ceramic honeycomb structure comprising a plurality of through-holes surrounded by partition walls, the ceramic honeycomb structure having an outer circumferential wall obtained by firing a layer of a raw material applied to a~circumference~ an inner circumferential wall of the ceramic honeycomb structure wherein a thermal expansion coefficient of the outer circumferential wall is larger than a thermal expansion coefficient, in a direction of a diameter, of an inside partition wall portion in the ceramic honeycomb structure so that, when the structure is cooled from the firing temperature, compression is applied to the inside partition wall portion from the outer circumferential wall portion.

2.   (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein a material for the outer circumferential wall of the ceramic honeycomb structure is the same as or different from the ceramic honeycomb structure material .

3.   (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein the partition walls of the ceramic honeycomb structure have a thickness of less than 0.1 mm.

4.   (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein the ceramic honeycomb structure has a

cell density of the through-holes of 62 cells/cm^2 or more.

5. (Original) A ceramic honeycomb structure as defined in claim 1, wherein the outer circumferential wall portion is thicker than an inside partition wall portion of the ceramic honeycomb structure.

6. (Original) A ceramic honeycomb structure as defined in claim 1, wherein the ceramic honeycomb structure has an open frontal area of 86% or more.

7. (Original) A ceramic honeycomb structure as defined in claim 1, wherein the ceramic honeycomb structure has a bulk density of 0.26g/cm^3 or less.

8. (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein the outer circumferential wall is made of crystalline cordierite.